

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-006472**Date Inspected:** 22-Mar-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 645**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1845**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See Below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG Fabrication**Summary of Items Observed:**

CWI Inspectors: Mr. Guo Yan Fei, Mr. Wu Ming Kai, Mr. Lian Yan Wi

On this date CALTRANS OSM Quality Assurance (QA) Inspector Mr. Paul Dawson arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China, for the purpose of monitoring welding and fabrication of the San Francisco / Oakland Bay Bridge (SFOBB) components. The QA Inspector observed the following:

Tower Bay 10

This QA Inspector performed random ultrasonic inspections of approximately 10 percent length of Tower Shear Link complete joint penetration welds NDI-SA183-18m-3-1r1, NDI-SA183-47.6m-1-1r1 and SDI-SA183-18m-4-1r1. These welds had previously been ultrasonically rejected and weld repaired. Today ZPMC Inspectors ultrasonically rejected six of the other Tower Shear Link Plate welds that had also been previously weld repaired. The QA Inspector observed the welds that were ultrasonically inspected by this QA Inspector appear to comply with AWS D1.5 UT requirements. For additional information on this inspection see the TL6027 Ultrasonic Test Report.

This QA Inspector performed random ultrasonic inspections of approximately 10 percent length of Lift 3 North tower skin plate E complete joint penetration butt weld NSD1-FDSI-1B/C-18r1. This weld had previously been ultrasonically inspected and accepted by ZPMC inspection personnel. The QA Inspector observed the weld that was ultrasonically inspected by this QA Inspector appears to comply with AWS D1.5 UT requirements. For

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additional information on this inspection see the TL6027 Ultrasonic Test Report.

The QA Inspector observed ZPMC has staged steel plates on a wet portion of the concrete floor in heavy bay #10 and that the plates are not stored on dunnage as required by the project specifications. The QA Inspector informed ZPMC QC CWI Mr. Lian Yan Wi that the plates are improperly stored and Mr. Xhen Ying Xin had the plates placed on pieces of wood. See the photograph below for additional information. On March 6, 2009 this QA Inspector also identified other plates that had been sitting on wet concrete. Later in the shift the QA Inspector observed the steel plates have been moved and the plates are now sitting on wood dunnage instead of being in direct contact with the concrete floor.

Heavy Bay 12

This QA Inspector observed ZPMC welder Mr. Han Hongwen, stencil 200149 is using flux cored welding procedure WPS-345-FCAW-2G(2F)-Repair-1 to make stiffener repairs to OBG deck plate DP442-001 closed rib welds. The QA Inspector observed the base material had been preheated using a torch. The QA Inspector observed ZPMC Quality Control Inspector Mr. Guy Yan Fei measuring a welding current of 285 amps and 29.2 volts. Items observed by this QA Inspector appear to be progressing in compliance with project specifications.

This QA Inspector observed ZPMC welder Mr. Han Siqi, stencil 202842 is using flux cored welding procedure WPS-345-FCAW-2G(2F)-Repair-1 to make stiffener repairs to OBG deck plate DP222-001 closed rib welds. The QA Inspector observed the base material had been preheated using a torch. The QA Inspector observed ZPMC Quality Control Inspector Mr. Guy Yan Fei measuring a welding current of 272 amps and 29.5 volts. Items observed by this QA Inspector appear to be progressing in compliance with project specifications.

This QA Inspector observed ZPMC welder Mr. Han Guodong, stencil 062259 is using flux cored welding procedure WPS-345-FCAW-2G(2F)-Repair-1 to make stiffener repairs to OBG deck plate DP330-001 closed rib welds. The QA Inspector observed the base material had been preheated using a torch. The QA Inspector observed ZPMC Quality Control Inspector Mr. Guy Yan Fei measuring a welding current of 272 amps and 29.5 volts. Items observed by this QA Inspector appear to be progressing in compliance with project specifications.

Summary of Conversations:

See above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang phone: 150-0042-2372 , who represents the Office of Structural Materials for your project.

Inspected By:	Dawson,Paul	Quality Assurance Inspector
Reviewed By:	Clifford,William	QA Reviewer
